



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Lester E. Cornelius, et al.
Serial No.: 09/783,520
Filed: 02/15/2001
For: Toner Seal Tear Strip Construction

**APPLICANT'S BRIEF
ON APPEAL**

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Pursuant to 37 C.F.R. 1.132, a notice of appeal pursuant to 37 C.F.R. 1.191 is being filed concurrently.

REAL PARTY IN INTEREST

The real party in interest is Lester E. Cornelius, one of the joint applicants, who now owns the entire interest in and to the invention and the subject application.

RELATED APPEALS AND INTERFERENCES

There are no other related appeals and interferences known to Applicants, Applicants' legal representative, or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

There are presently pending in the application, claims 15 to 24, inclusive. Claims 11 and 25 have been withdrawn pursuant to a final holding by Examiner. Claims 15 to 24 have been finally rejected, and form the basis for the present appeal.

STATUS OF AMENDMENTS

A single amendment canceling claims 11 and 25 has been filed and considered entered.

SUMMARY OF THE INVENTION

The present invention relates to the field of replaceable toner cartridges used in electro-photographic copying machines, and more particularly to an improved removable toner seal which is used to cover the elongated slot in the cartridge through which toner material flows during operation of the copier.

As elaborated commencing at the last paragraph in page 1 of the specification, a toner seal should not only prevent toner from leaking, but should also be easy to remove and its removal should result in an opening that is of constant width throughout the axial length of the seal. The complex geometry of toner cartridges typically requires a central strip of seal material to be removed by tearing longitudinally a portion of this strip normally projecting outwardly of the toner cartridge housing so as to be manually grasped and pulled once the cartridge has been properly installed in the copying machine. It is usual to make the seal using parallel-extruded polypropylene or polyethylene fibers that are bound together along their length by fusing the material as it is extruded. These are commonly referred to as ribbon seals, because the material is commonly manufactured as ribbon. These materials are not specifically designed to tear in a particular fashion, although they tend to tear along their axial length, or in one direction, removing a section of material by beginning a tear at two spaced terminal points. This does not necessarily result in a consistent width of the material removed.

Referring to Page 3 in the specification, the invention contemplates the provision of an improved synthetic resinous seal construction of this type in which the longitudinal edges of the tear strip portion, along which the tearing operation procedure is performed, is strengthened by the lamination of additional longitudinally-extending material

which may include electrically conductive properties, so as to dissipate the electro-static charge normally present in the particulate toner in the hopper portion of the cartridge. This action will result in a tear strip portion which will be relatively free of toner particles on the surface of the strip after it is removed, thus avoiding soiling of the hands or garments of the user during installation of the cartridge. To accomplish this, a second layer of seal ribbon material is laminated along the full length of the primary seal material at the centrally-disposed tear portion which creates increased burst resistance (normally encountered during shipment), and a full-length guide for the pull strip tab. As will be more fully discussed, the lamination is confined to the areas which form the tear strip, and do not extend to cause lamination of the areas adjacent the tear strip which form the mouth of the opening once the tear strip has been removed.

ISSUES

The principal issue presented for review is the propriety of Examiner's final rejection of claims 15 to 24, inclusive, under the judicially created doctrine of obviousness-type double patenting in view of claims 9 to 13 of U.S. Patent No. 6,041,202. A secondary issue is the interpretation by Examiner of 37 C.F.R. 1.52(c) which he considers calls for a provision of a substitute specification for any authorization made to the specification as filed.

GROUPING OF THE CLAIMS

For purposes of the present appeal, all of the claims are considered to stand or fall together.

ARGUMENT

In Examiner's final action, he has rejected claims 15 to 24, inclusive, under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 to 13, inclusive of U.S. Patent 6,041,202. Examiner has stated that although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to form the layers in the patent from well-known materials, such as polyethylene and polypropylene, in view of the disclosure at page 6, lines 6-10 of the instant specification. Examiner has stated that Applicants' arguments have been considered, but are not being persuasive. He states that Applicant argues that the prior patent is not directed to lamination of the two fibrous layers along an axially central area and is directed to lamination at spaced intervals. Examiner has stated that claim 13 of the patent discloses a continuous strip of additional fibrous material laminated to a first strip of fibrous material, and that while there is no specific teaching of laminating the additional fibrous layer to the central portion, such new structure would have been obvious to one of ordinary skill in the art since it is well-known in the toner seal art to have the strip tearable in a centrally-located area of the seal, making reference to the instant specification, the paragraph bridging pages 1 and 2.

Examiner has stated that the non-statutory double-patenting rejection is based on a judicially created doctrine grounded in public policy so as to prevent the unjustified or improper timewise extension of the "right-to-exclude" granted by a patent, and to prevent possible harassment by multiple assignees, citing *In re Goodman*, 29 U.S.P.Q. 20(d), 2010 (Fed.Cir. 1993); *In re Longi*, 225 U.S.P.Q. 645(Fed.Cir. 1985;

In re Van Omum, 214 U.S.P.Q. 761(CCPA 1982); In re Vogel, 164 U.S.P.Q. 619 (CCPA 1970); and, In re Thorington, 163 U.S.P.Q. 644 (CCPA 1969).

These cases have been carefully reviewed, and each includes decisions that are based upon the factual situation presented. It is submitted that the most analogous case is the Vogel case (164 USPQ 619), which is most useful for its statement of the applicable law, given that this law is not specifically provided by statute.

The first question addressed in the Opinion commencing in page 621 is whether the same invention is being claimed twice. By the "same invention", the Court means identical subject matter. The Court recognizes that claims may be differently worded, and still find the same invention, mentioning as an example, a claim reciting the length of "thirty-six inches", defines the same invention as a claim reciting a length of "three feet", if all other limitations are identical. It is believed that this is not a problem presented by the present appeal, since the Examiner indicates that he considers that the claims on appeal are an obvious variant over the subject matter of the claims in the cited patent.

Commencing at [headnote 3], the Court goes on to a second analysis question which is "does any claim in the application define merely an obvious variation of an invention disclosed and claimed in the patent? In considering the question, the patent disclosure may not be used as prior art. However, this does not mean that the disclosure may not be used at all. In certain instances, it may be used as a dictionary to learn the meaning of the terms in a claim. It may also be used as required to answer the second analysis question. The Court recognizes that it is most difficult, if not meaningless, to try to say what is or is not an obvious variation of a claim. A claim is a group of words defining

only the boundary of the patent ^manapoly. It may not describe any physical thing and indeed may encompass physical things not yet dreamed of. However, the Court poses the question of how can it be obvious or not obvious to modify a legal boundary. The disclosure, however, sets forth at least one tangible embodiment within the claim, and it is less difficult and more meaningful to judge whether that thing has been modified in an obvious manner. The Court notes that this use of the disclosure is not in contravention of the cases forbidding its use as prior art. The Court notes that it is not applying the patents of reference under 35 U.S.C. 103, since only the disclosure of the invention claimed in the patent may be examined. The Court states that each of the claims must be analyzed separately.

Following this instruction, reference can be made to the specification of Applicants' prior patent.

As pointed out in the "Background of the Invention", two of the problems involved in using toner seals are present. A principal one is the ability to resist bursting caused by the weight of the toner and a sudden impact, as could occur in shipping. The resultant unwanted bursting allows the toner to leak from the cartridge. Incidentally mentioned is the ability to tear in a straight line, but, as indicated in the summary of the invention, it relates to increasing the bursting, i.e., the transverse strength of the seal, and create a more controlled tear strip. To this end, certain of the ribbon materials are formed to a higher degree of fusion, lowered through the application of adhesive-backed laminating material in the form of reinforcing bands extending transversely of the axis of the strip. By causing more complete fusion of the film in a direction normal to the direction of the tear, the inherent weakness of the material is overcome without loss of the formation

of straight tear lines along the parallel fibers. As mentioned in the last sentence, in the preferred embodiment, additional laminating material is provided in the form of a complete strip extending the length of the seal, and laminated by heat sealing. It is this embodiment which still operates in the exact same manner as the other disclosed embodiments which it is believed causes a basis for considering that the present claims on appeal are a mere variant of this earlier invention.

To summarize, the earlier patent teaches the idea of reinforcing the seal against bursting by providing additional material which extends laterally past the tear strip to be bonded to the areas which remain in position when the tear strip is removed. This reinforcing material is oriented such that it will tear when the tear strip is torn to form the passage for toner. It does not address the other problem of providing a toner opening of uniform width, which is another problem. It will be readily understood that for simplicity of manufacture, it is far more convenient to provide these laterally-extending reinforcing areas in the form of a continuous strip which can be incorporated into the seal while it is still in ribbon form.

With the foregoing in view, reference may be made to the present specification wherein page 3 "Summary of the invention", describes the improved seal construction in which the longitudinal edges of the tear strip portion, along which the tearing operation procedure is performed, is strengthened by the lamination of additional longitudinally-extending material which may include electrically-conductive properties, so as to dissipate the electro-static charge normally present in the particulate toner in the hopper portion of the cartridge. This action will result in a removable tear strip which will be relatively free of toner particles on the surface of the strip after it is removed, thus

avoiding soiling the hands or garments of the user during installation of the toner cartridge. To this end, a second layer of seal ribbon material is laminated along the full length of the primary seal material at the centrally-disposed tear portion which creates increases burst resistance "in the tear portion", and a full-length guide for the pull strip tab. As a result, the seal includes two layers of material of substantially equal length and width. The two layers are laminated together in a longitudinal direction so that the tear strip, from the standpoint of mechanical strength, is twice as thick as it would otherwise be. The parallel portions on either side of the tear strip are not laminated together, as is the case in the prior patent, and since the exposed surface of the first lamina in the areas laterally of the tear strip will remain in position (as known in the art) when the tear strip is removed, the double thickness of the tear strip will form a rectilinear tear line at its longitudinal edges, and thus assure that when the tear strip is removed, a constant width opening will be formed because reliance is not made on the presence of axially-oriented fibers, but the fact that the tear strip is substantially thicker than that portion of the seal which remains adhesively adhered to the mouth of the toner hopper opening. There is no suggestion of treating this problem in the disclosure of the earlier patent, and Examiner's position that this construction is a mere obvious variant of the preferred embodiment disclosed in the patent is submitted as being reached only with the benefit of hindsight with respect to the earlier patent. As mentioned above, this earlier patent is not prior art, but the only way it can be considered is whether it falls within the purview of 35 U.S.C. 103. It is noted that Examiner considers now withdrawn claims 11 and 25 as directed to a separate "method" invention, notwithstanding the fact that these claims are directed simply to the method of laminating the central portion of the upper lamina to the lower lamina.

It is submitted that relative to the above issue, the present claims are not an obvious variant of the disclosure of the subject patent. In compliance with Vogel, consideration has not been made to the claims of the earlier patent, but merely the disclosure.

The remaining issue is formal, rather than substantive, and is set forth in paragraph 2 of Examiner's final action. During typing of the specification, in line 9, page 4, a mistyping occurred which was removed before the specification was submitted to the Applicants for signature of the declaration. At the time of correction, this action was considered a "correction", rather than interlineation, erasure, cancellation or other alteration mentioned in Section 1.52. As a result, it was not mentioned to Applicants prior to their signing, and accordingly was not dated and initialed. As a result, Examiner now considers that a substitute specification is required.

A careful reading of Section 1.52(c) indicates that any alteration must be made before the signing of any accompanying declaration, and should be dated and initialed or signed on the same sheet of paper. A substitute specification is required if the examination papers do not comply with paragraphs (a) and (b) of this section. Examiner has not made such an indication.

It is Applicants' position that this section was carefully drafted, and the expression "must" indicates a mandatory nature, while the expression "should" indicates a non-mandatory portion. Where a substantial, e.g. substantive alteration is made, "particularly with the addition of subject matter", a mandatory nature is readily understood. Where merely a typographic error which is not part of the disclosure is corrected, it is also easy to understand where such action could be overlooked, and for this reason, it is believed that this part of the section indicates that initialing is not mandatory.

The Board may wonder why this issue arises at all. The difficulty is the problem of locating the co-inventor who has assigned his interests to Lester Cornelius at the present time. He was a resident of Hong Kong following the absorption of that city into the People's Republic.

In any event, it is submitted that the supplying of a completely new specification, where the prior specification is in accordance with paragraphs (a) and (b) serves no useful purpose. In this connection, it is submitted that the purpose of Section 1.52 is to assure that an applicant understands exactly what he is disclosing and that it conforms to his understanding of his joint or sole inventorship. It is not believed that it is intended to apply to the factual situation in this case.

SUMMARY

The present rejection, has a somewhat distant basis of support in 35 U.S.C., Section 101, but in fact, it can be argued by comparison with a rejection under Section 103. The cited patent is not prior art, but is treated from the standpoint of what is actually disclosed in the specification, so that some conclusion can be reached as to whether it would have been obvious to a worker skilled in the art, with this disclosure before him, to arrive, without the use of the inventive faculty, with the structure presently claimed which is directed toward the creation of a superior tear strip, as discussed hereinabove. The lamination of the layers forming the tear strip do have some increase in burst resistance, but only within the tear strip itself. This lamination does not increase the burst strength of the entire seal, as is contemplated by Applicants' prior patent.

CONCLUSION

On the basis of the above argument, the Applicants seek a reversal of Examiner's rejection of the claims based upon obvious double patent over the cited reference, and a conclusion by the Board that the filing of a substitute specification under 37 C.F.R. 1.52(c) is not apposite given the present factual circumstances.

Respectfully,

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20231, on 10/8/02

Dated 10/8/02 By: *Charles E. Temko*

Appendix
The claims on appeal

--15. A synthetic resinous toner seal including a centrally located tear strip for electrostatic copiers comprising: a base lamina of material having a principal axis, and formed by extruding parallel elongated fibers which are axially-oriented in fused relation, wherein said centrally axially-oriented portion of the lamina may be torn along said axis to form an elongated opening for the passage of toner; and a second reinforcing lamina of substantially congruent configuration being laminated to a surface of said base lamina over a centrally axially positioned mutually contacting surface forming a tear strip, said second lamina being formed from axially-oriented fibers which are parallel to the fibers of said first lamina, whereby said first and second laminae may be torn as an integral centrally-located tear strip.

16. A seal in accordance with claim 15, in which said first and second laminae are laminated only in an area forming said tear strip.

17. A seal in accordance with claim 15, in which said first and second laminae are formed from similar materials.

18. A seal in accordance with claim 15, in which at least said second lamina is formed of electro-conductive material.

19. A seal in accordance with claim 18, in which one of said lamina is formed from material capable of dissipating a triboelectric charge from contacting toner particles.

20. A seal in accordance with claim 19, in which said second lamina is formed of polyethylene.

21. A seal in accordance with claim 19, in which said second lamina is formed of polypropylene.

22. A seal in accordance with claim 19, in which said second lamina is formed from nylon.

23. A seal in accordance with claim 15, further comprising an additional layer of material at least partially surrounding an area of initial tearing and adhered to a planar surface thereof to prevent wrinkling of said area during a tearing operation.

24. A seal in accordance with claim 23, further comprising a second layer of material adhered to said surface of said seal at an area distal to said area of initial tearing, and forming a guide for said tear strip.